

<213> Homo sapiens

SEQUENCE LISTING

<110>	CLARK, Susan J. MILLER, Douglas S. MOLLOY, Peter L.	
<120>	ASSAY FOR METHYLATION IN THE GST-Pi Gene	
<130>	Q61152	
	US 09/673,448 2000-11-27	
	PCT/AU99/00306 1999-04-23	
	PP 3129 1998-04-23	
<160>	60	
<170>	PatentIn version 3.3	
<210><211><212><213>		
	1 gttt tcgttggagt ttcgtcgtc	29
<210><211><212><213>	2 25 DNA Homo sapiens	
<400> cgttat	2 tagt gagtacgcgc ggttc	25
<210> <211> <212>	3 24 DNA	

<400> yggttt	3 cagg gaatttttt	tcgc	24
<210><211><212><212><213>	4 28 DNA Homo sapiens		
	4 gtta gttygttgyg	tatatttc	28
	5 29 DNA Homo sapiens		
<400>	5 Litt titcgcgatg	tttyggcgc	29
<210><211><212><212><213>	6 24 DNA Homo sapiens		
<400>	6 gggg gttyggagcg	tttc	24
<210><211><212><212><213>	7 19 DNA Homo sapiens		
<400>	7 ttgy gtttatcgc		19
<210><211><211><212><213>	27		
<400>			

aaaaatt	cra atctctccga	ataaacg	27
<210>	9	·	
<211>	27		
<212>	DNA		
<213>	Homosapiens		
<400>	9		
aaaaacc	craa ataaaaacca	cacgacg	27
<210>	10		
<211>	25		
<212>	DNA		
<213>	Homo sapiens		
<400>	10		
tcccato	cct ccccgaaacg	ctccg	25
<210>	11	•	
<211>	33		
<212>	DNA		
<213>	Homosapiens		
<400>	11		
gaaacgo	ctcc gaacccccta	aaaaccgcta acg	33
<210>	12		
<211>	27		
<212>	DNA		
<213>	Homo sapiens		
<400>	12		
	aaaa tccccraaat	crccgcg	27
<210>	13		
<211>	30		
<212>	DNA		
<213>	Homo sapiens		
<400>	13		
	acra ccrctacacc	ccraacgtcg	30
		- 3 of 19 -	

\Z1U/	7.4	
<211>	31	
<212>	DNA	
	Homo sapiens	
\ 213/	Homo sapiens	
	14	2.1
ctcttc	taaa aaatcccrcr aactcccgcc g	31
<210>	15	
<211>	29	
<212>		
<213>	Homo sapiens	
<400>		
aaaacr	ccct aaaatccccg aaatcgccg	29
<210>	16	
<211>		
<212>		
<213>	Homo sapiens	
<400>	16	
aactcc	crcc gaccccaacc ccgacgaccg	30
<210>	17	
<211>		
<212>		
<213>	Artificial Sequence	
<220>		
<223>	Oligo which binds bisulfite-converted human GST-Pi gene	
<400>	17	
aaacct	aaaa aataaacaaa caa	23
Z210×	10	
<210>		
<211>		
<212>		
/212	Artificial Compando	

<220> <223>	Oligo whcih binds non-converted human GST-Pi gene	
<400>		23
gggcct	aggg agtaaacaga cag	23
<210>		
<211> <212>	,	
	Artificial Sequence	
<220>		
<223>	Oligo which binds human GST-Pi gene	
<400>		25
CCTTTC	cctc tttcccarrt cccca	23
<210>	20	
<211>	·	
<212>	DNA Artificial Sequence	
	And the first an	
<220> <223>	Oligo which binds bisulfite-converted human GST-Pi gene	
<400>	20	
	attt tttttcgggt tttag	25
<210>		
<211> <212>	DNA	
	Artificial Sequence	
<220>		
<223>	Oligo which binds non-converted human GST-Pi gene	
<400>		
cttggc	atcc tccccgggc tccag	25
~21 Os	22	
<210> <211>	22 26	
<212>		

<213>	Artificial Sequence	
<220> <223>	Oligo which binds human GST-Pi gene	•
<400>	22	26
ggyaggg	gaag ggaggyaggg gytggg	20
<210><211><211><212><213>	31	
	23	21
ttatgta	aata aatttgtata ttttgtatat g	31
<210> <211> <212> <213>	25	
	24 ttat ttaaggttag gagtt	25
<210><211><211><212><213>	25 27 DNA Homo sapiens	
<400> aaaccta	25 aaaa aataaacaaa caacaaa	27
<210><211><211><212><213>	26 29 DNA Homosapiens	
<400> aaaaaaa	26 cctt tccctctttc ccaaatccc	29
<210>	27	

<211> <212>	27 DNA		
	Homo sapiens		
	27		27
tttgttg	gttt gtttatttt	taggttt	21
	28		
	26		
	DNA		
<213>	Homo sapiens		
<400>			0.0
gggattt	ggg aaagagggaa	aggttt	26
<210>	29		
<211>	24		
	DNA		
<213>	Homosapiens		
<400>	29		
actaaaa	act ctaaacccca	tccc	24
<210>	30		
<211>	24		
	DNA		
<213>	Homo sapiens		
<400>	30		
aacctaa	atac taccttaacc	ccat	24
<210>	31		
<211>	33		
<212>	DNA		
<213>	Homo sapiens		
<400>	31		2.2
aatcct	cttc ctactatcta	tttactccct aaa	33
<210>	32		
<211>	29		

	DNA Homo sapiens	
	32	
	taaa aaaaaaaaa aaacttccc	29
	33	
	29	
<212>		
<213>	Homo sapiens	
<400>	33	
ttggtt	ttat gttgggagtt ttgagtttt	29
<210>	34	
<211>	29	
<212>	DNA	
<213>	Homo sapiens	
<400>	34	
ttttgtg	gggg agttggggtt tgatgttgt	29
<210>	35	
<211>	29	
	DNA	
	Homo sapiens	
<400>	35	
	gagt ttttagtatg gggttaatt	29
ggccca		
<210>	36	
<211>	20	•
<212>	DNA	
<213>	Homo sapiens	
<400>	36	
	tagg ttagggtttt	20
J		
<210>	37	
<211>	29	
<212>	DNA	

<213>	Homo sapiens		
<400>	37		
aactcta	acc ctaatctacc	aacaacata	29
<210>	38		
<211>	29	•	
<212>	DNA		
<213>	Homo sapiens		
<400>	38		
caaaaaa	actt taaataaacc	ctcctacca	29
<210>	39		
<211>	32		
<212>	DNA		
<213>	Homo sapiens		
<400>	39		
gttttgt	ggt taggttgttt	tttaggtgtt ag	32
•			
<210>	40		
<211>	30		
<212>	DNA		
<213>	Homo sapiens		
<400>	40		
gttttga	agta tttgttgtgt	ggtagttttt	30
<210>	41		
<211>	30		
<212>	DNA		
<213>	Homo sapiens		
<400>	41		
ttaatat	taaa taaaaaaaat	atatttacaa	30
<210>	42		
<211>	34		
<212>	DNA		
<213>	Homo sapiens		

caaccc	ccaa tacccaaccc	taatacaaat	actc 34	1
<212>	26			
<400> ggtttt	43 agtt tttggttgtt	tggatg	26	5
<210><211><212><212><213>	26			
<400> ttttt	44 tgtt tttagtatat	gtgggg	26	5
	45 aaaa aactattttc	taatcctcta	30)
<210><211><211><212><213>	29			
<400> ccaaac	46 taaa aactccaaaa	aaccactaa	29	€
<210><211><212><212><213>		ence		

<220>		
<223>	M13-human GST-Pi oligonucleotide	
<400>	47	
tgtaaaa	acga cggccagtgg gatttgggaa agagggaa	38
<210>	48	
<211>	38	
<212>	DNA	
<213>	Artificial Sequence	
<220>	M12 homes GGM Di aligaruglastida	
<223>	M13-human GST-Pi oligonucleotide	
<400>	48	38
tgtaaa	acga cggccagttg ttgggagttt tgagtttt	30
<210>	49	
<211>		
<212>		
	Artificial Sequence	
<220>		
<223>	M13-human GST-Pi oligonucleotide	
	49	21
tgtaaa	acga cggccagtta gtattaggtt a	31
<210>	50	
<211>	37	
<212>	DNA	
<213>	Artificial Sequence	
	0111101111	
<220> <223>	M13-human GST-Pi oligonucleotide	
<400>	50	
	50 acga cggccagtgt tttgagtatt tgttgtg	37
tytaaa	acya cyyccaytyt tityaytatt tyttyty	<i>J</i> ,
<210>	51	
<211>	35	
<212>	DNA	

<213>	Arti	ficial Sequ	ience				
<220> <223>	M13-	human GST-E	Pi oligonucl	eotide			
<400> tgtaaaa	51 acga	cggccagtgt	ttttagtata	tgtgg			35
	52 499 DNA Homo	o sapiens					
<400>	52		~~~++ a ~~~~		annata a	aaaccccatc	60
		•			caacatggtg		
tctacta	aaaa	atacaaaaat	cagccagatg	tggcacgcac	ctataattcc	acctactcgg	120
gaggctg	gaag	cagaattgct	tgaacccgag	aggcggaggt	tgcagtgagc	cgccgagatc	180
gcgccac	ctgc	actccagcct	gggccacagc	gtgagactac	gtcataaaat	aaaataaaat	240
aacacaa	aaat	aaaataaaat	aaaataaaat	aaaataaaat	aataaaataa	aataaaataa	300
aataaaa	ataa	aataaaataa	agcaatttcc	tttcctctaa	gcggcctcca	ccctctccc	360
ctgccct	gtg	aagcgggtgt	gcaagctccg	ggatcgcagc	ggtcttaggg	aatttccccc	420
cgcgatg	gtcc	cggcgcgcca	gttcgctgcg	cacacttcgc	tgcggtcctc	ttcctgctgt	480
ctgttta	actc	cctaggccc					499
<212>	53 316 DNA Homo	o sapiens					
<400> gggacct	53 eggg	aaagagggaa	aggetteece	ggccagctgc	gcggcgactc	cggggactcc	60
					gccggggctg		120
gagtee	מכממ	gaccetecag	aagagggggg	aacaccataa	ctcagcactg	adacadaaca	180

gggcgggacc	acccttataa	ggctcggagg	ccgcgaggcc	ttcgctggag	tttcgccgcc	240
gcagtcttcg	ccaccagtga	gtacgcgcgg	cccgcgtccc	cggggatggg	gctcagagct	300
cccagcatgg	ggccaa					316
<210> 54 <211> 603 <212> DNA <213> Homo	o sapiens					
<400> 54 cagcatcagg	cccgggctcc	cggcagggct	cctcgcccac	ctcgagaccc	gggacggggg	60
cctaggggac	ccaggacgtc	cccagtgccg	ttagcggctt	tcagggggcc	cggagcgcct	120
cggggaggga	tgggaccccg	ggggcgggga	gggggggcag	gctgcgctca	ccgcgccttg	180
gcatcctccc	ccgggctcca	gcaaactttt	ctttgttcgc	tgcagtgccg	ccctacaccg	240
tggtctattt	cccagttcga	ggtaggagca	tgtgtctggc	agggaaggga	ggcaggggct	300
ggggctgcag	cccacagccc	ctcgcccacc	cggagagatc	cgaaccccct	tatccctccg	360
tcgtgtggct	tttaccccgg	gcctccttcc	tgttccccgc	ctctcccgcc	atgcctgctc	420
cccgccccag	tgttgtgtga	aatcttcgga	ggaacctgtt	tacctgttcc	ctccctgcac	480
tcctgacccc	tccccgggtt	gctgcgaggc	ggagtcggcc	cggtccccac	atctcgtact	540
tctccctccc	cgcaggccgc	tgcgcggccc	tgcgcatgct	gctggcagat	cagggccaga	,600
gct						603
<210> 55 <211> 266 <212> DNA <213> Homo	o sapiens					
<400> 55 gctctgagca	cctgctgtgt	ggcagtctct	catccttcca	cgcacatcct	cttcccctcc	60
		acagccccct				120

atcaggcgcc	cagtcacgcg	gcctgctccc	ctccacccaa	ccccagggct	ctatgggaag	180
gaccagcagg	aggcagccct	ggtggacatg	gtgaatgacg	gcgtggagga	cctccgctgc	240
aaatacatct	ccctcatcta	caccaa				266
<210> 56 <211> 287 <212> DNA <213> Homo	o sapiens					
<400> 56	ctcaccatat	ataaaacacc	teagtgeeeg	gcccaagctc	aaggccttcc	60
tggcctcccc	tgagtacgtg	aacctcccca	tcaatggcaa	cgggaaacag	tgagggttgg	120
ggggactctg	agcgggaggc	agagtttgcc	ttcctttctc	caggaccaat	aaaatttcta	180
agagagctac	tatgagcact	gtgtttcctg	ggacggggct	taggggttct	cagcctcgag	240
gtcggtggga	gggcagagca	gaggactaga	aaacagctcc	tccagca		287
<210> 57 <211> 524 <212> DNA <213> Homo	o sapiens					
<211> 524 <212> DNA <213> Homo <400> 57		ataaaggaat	ttaatttaat	ctaagcggcc	tccacccctc	60
<211> 524 <212> DNA <213> Homo <400> 57 ataaaataaa	ataaaataaa			ctaagcggcc		60
<211> 524 <212> DNA <213> Homo <400> 57 ataaaataaa	ataaaataaa			ctaagcggcc cagcggtctt		60
<211> 524 <212> DNA <213> Homo <400> 57 ataaaataaa tcccctgccc	ataaaataaa tgtgaagcgg	gtgtgcaagc	tccgggatcg		agggaatttc	
<211> 524 <212> DNA <213> Homo <400> 57 ataaaataaa tcccctgccc cccccgcgat	ataaaataaa tgtgaagcgg gtcccggcgc	gtgtgcaagc gccagttcgc	tccgggatcg tgcgcacact	cageggtett	agggaatttc cctcttcctg	120
<211> 524 <212> DNA <213> Homo <400> 57 ataaaataaa tcccctgccc cccccgcgat ctgtctgttt	ataaaataaa tgtgaagcgg gtcccggcgc actccctagg	gtgtgcaagc gccagttcgc ccccgctggg	tccgggatcg tgcgcacact . gacctgggaa	cagcggtctt	agggaatttc cctcttcctg gcttccccgg	120 180
<211> 524 <212> DNA <213> Homo <400> 57 ataaaataaa tcccctgccc cccccgcgat ctgtctgttt ccagctgcgc	ataaaataaa tgtgaagcgg gtcccggcgc actccctagg ggcgactccg	gtgtgcaagc gccagttcgc ccccgctggg gggactccag	tccgggatcg tgcgcacact gacctgggaa ggcgcccctc	cagcggtctt tcgctgcggt agagggaaag	agggaatttc cctcttcctg gcttccccgg gcccggggtg	120 180 240
<211> 524 <212> DNA <213> Homo <400> 57 ataaaataaa tcccctgccc cccccgcgat ctgtctgttt ccagctgcgc cagcggccgc	ataaaataaa tgtgaagcgg gtcccggcgc actccctagg ggcgactccg cggggctggg	gtgtgcaagc gccagttcgc ccccgctggg gggactccag gccggcggga	tccgggatcg tgcgcacact gacctgggaa ggcgcccctc gtccgcggga	cagcggtctt tcgctgcggt agagggaaag tgcggccgac	agggaatttc cctcttcctg gcttccccgg gcccggggtg gagcggccgg	120 180 240 300

cgcgtccccg	gggatggggc	tcagagctcc	cagcatgggg	ccaa		524
<210> 58 <211> 524 <212> DNA <213> Home	o sapiens					
<400> 58	2+222+222	ataaagtaat	++++++++	ttaaataatt	+++a+++++	60
						120
ttttttgttt	tgtgaagtgg	gtgtgtaagt	tttgggattg	tagtggtttt	agggaatttt	120
tttttgtgat	gttttggtgt	gttagtttgt	tgtgtatatt	ttgttgtggt	ttttttttg	180
ttgtttgttt	attttttagg	ttttgttggg	gatttgggaa	agagggaaag	gtttttttgg	240
ttagttgtgt	ggtgattttg	gggattttag	ggtgttttt	tgtggttgat	gtttggggtg	300
tagtggttgt	tggggttggg	gttggtggga	gtttgtggga	ttttttagaa	gagtggttgg	360
tgttgtgatt	tagtattggg	gtggagtggg	gtgggattat	ttttataagg	tttggaggtt	420
gtgaggtttt	tgttggagtt	ttgttgttgt	agtttttgtt	attagtgagt	atgtgtggtt	480
tgtgtttttg	gggatggggt	ttagagtttt	tagtatgggg	ttaa	•	524
<210> 59 <211> 524 <212> DNA <213> Home	o sapiens					
<400> 59 ataaaataaa	ataaaataaa	ataaagtaat	tttttttt	ttaagcggtt	tttattttt	60
ttttttgttt	tgtgaagcgg	gtgtgtaagt	ttcgggatcg	tagcggtttt	agggaatttt	120
ttttcgcgat	gtttcggcgc	gttagttcgt	tgcgtatatt	tcgttgcggt	ttttttttg	180
ttgtttgttt	attttttagg	tttcgttggg	gatttgggaa	agagggaaag	gttttttcgg	240
ttagttgcgc	ggcgatttcg	gggattttag	ggcgtttttt	tgcggtcgac	gttcggggtg	300
tagcggtcgt	cggggttggg	gtcggcggga	gttcgcggga	ttttttagaa	gagcggtcgg	360

cgtcgtgatt	tagtattggg	gcggagcggg	gcgggattat	ttttataagg	ttcggaggtc	420
gcgaggtttt	cgttggagtt	tcgtcgtcgt	agttttcgtt	attagtgagt	acgcgcggtt	480
cgcgttttcg	gggatggggt	ttagagtttt	tagtatgggg	ttaa		524

<210> 60

<211> 4261

<212> DNA

<213> Homo sapiens

<400> 60

aacaagagat	caatatctag	aataaatgga	gatctgcaaa	tcaacagaaa	gtaggcagca	60
aagccaaaga	aaatagccta	aggcacagcc	actaaaagga	acgtgatcat	gtcctttgca	120
gggacatggg	tggagctgga	agccgttagc	ctcagcaaac	tcacacagga	acagaaaacc	180
agcgagaccg	catggtctca	cttataagtg	ggagctgaac	aatgagaaca	catggtcaca	240
tggcggcgat	caacacacac	tggtgcctgt	tgagcggggt	gctggggagg	gagagtacca	300
ggaagaatag	ctaagggata	ctgggcttaa	tacctgggtg	atgggatgat	ctgtacagca	360
aaccatcatg	gcgcacacac	ctatgtaaca	aacctgcaca	tcctgcacat	gtaccccaga	420
acttcaaata	aaagttggac	ggccaggcgt	ggtggctcac	gcctgtaatc	ccagcacttt	480
gggaagccga	ggcgtgcaga	tcacctaagg	tcaggagttc	gagaccagcc	cggccaacat	540
ggtgaaaccc	cgtctctact	aaaaatacaa	aaatcagcca	gatgtggcac	gcacctataa	600
ttccacctac	tcgggaggct	gaagcagaat	tgcttgaacc	cgagaggcgg	aggttgcagt	660
gagccgccga	gatcgcgcca	ctgcactcca	gcctgggcca	cagcgtgaga	ctacgtcata	720
aaataaaata	aaataacaca	aaataaaata	aaataaaata	aaataaaata	aaataataaa	780
ataaaataaa	ataaaataaa	ataaaataaa	ataaagcaat	ttcctttcct	ctaagcggcc	840
tccacccctc	tcccctgccc	tgtgaagcgg	gtgtgcaagc	tccgggatcg	cagcggtctt	900
agggaatttc	ccccgcgat	gtcccggcgc	gccagttcgc	tgcgcacact	tcgctgcggt	960
cctcttcctg	ctgtctgttt	actccctagg	ccccgctggg	gacctgggaa	agagggaaag	1020

1080 gcttccccgg ccagctgcgc ggcgactccg gggactccag ggcgcccctc tgcggccgac 1140 gcccggggtg cagcggccgc cggggctggg gccggcggga gtccgcggga ccctccagaa 1200 gagcggccgg cgccgtgact cagcactggg gcggagcggg gcgggaccac ccttataagg 1260 ctcggaggcc gcgaggcctt cgctggagtt tcgccgccgc agtcttcgcc accagtgagt 1320 acgcgcggcc cgctccccgg ggatggggct cagagctccc agcatggggc caacccgcag 1380 catcaggece gggetecegg cagggetect egeceacete gagaceeggg aegggggeet 1440 aggggaccca ggacgtcccc agtgccgtta gcggctttca gggggcccgg agcgcctcgg 1500 ggagggatgg gaccccgggg gcggggaggg ggggcaggct gcgctcaccg cgccttggca 1560 tectececeg ggetecagea aactttett tgttegetge agtgeegeee tacacegtgg tctatttccc agttcgaggt aggagcatgt gtctggcagg gaagggaggc aggggctggg 1620 1680 gctgcagccc acagcccctc gcccacccgg agagatccga acccccttat ccctccgtcg tgtggctttt accccgggcc tccttcctgt tccccgcctc tcccgccatg cctgctcccc 1740 1800 gccccagtgt tgtgtgaaat cttcggagga acctgtttac ctgttccctc cctgcactcc 1860 tgacccctcc ccgggttgct gcgaggcgga gtcggcccgg tccccacatc tcgtacttct 1920 ccctccccgc aggccgctgc gcggccctgc gcatgctgct ggcagatcag ggccagagct ggaaggagga ggtggtgacc gtggagacgt ggcaggaggg ctcactcaaa gcctcctgcg 1980 2040 taagtgacca tgcccgggca agggggggg gtgctgggcc ttagggggct gtgactagga 2100 tcgggggacg cccaagctca gtgcccctcc ctgagccatg cctcccccaa cagctatacg 2160 ggcagetece caagttecag gaeggagaee teaceetgta ceagtecaat accateetge gtcacctggg ccgcaccctt ggtgagtctt gaacctccaa gtccagggca ggcatgggca 2220 2280 agcctctgcc cccggagccc ttttgtttaa atcagctgcc ccgcagccct ctggagtgga 2340 ggaaactgag acccactgag gttacgtagt ttgcccaagg tcaagcctgg gtgcctgcaa tccttgccct gtgccaggct gcctcccagg tgtcaggtga gctctgagca cctgctgtgt 2400

2460 ggcagtctct catccttcca cgcacatcct cttcccctcc tcccaggctg gggctcacag 2520 acageceect ggttggeeca tececagtga etgtgtgttg ateaggegee eagteaegeg 2580 gcctgctccc ctccacccaa ccccagggct ctatgggaag gaccagcagg aggcagccct 2640 ggtggacatg gtgaatgacg gcgtggagga cctccgctgc aaatacatct ccctcatcta 2700 caccaactat gtgagcatct gcaccagggt tgggcactgg gggctgaaca aagaaagggg 2760 cttcttgtgc cctcaccccc cttacccctc aggtggcttg ggctgacccc ttcttgggtc 2820 agggtgcagg ggctgggtca gctctgggcc aggggcccag gggcctggga caagacacaa 2880 cctgcaccct tattgcctgg gacatcaacc agccaagtaa cgggtcatgg gggcgagtgc 2940 aaggacagag acctccagca actggtggtt tctgatctcc tggggtggcg agggcttcct 3000 ggagtagcca gaggtggagg aggatttgtc gccagtttct ggatggaggt gctggcactt 3060 ttagctgagg aaaatatgca gacacagagc acatttgggg acctgggacc agttcagcag 3120 3180 tgtgtcgggt gggtaaggag atagagatgg gcgggcagta ggcccaggtc ccgaaggcct 3240 tgaacccact ggtttggagt ctcctaaggg caatgggggc cattgagaag tctgaacagg 3300 gctgtgtctg aatgtgaggt ctagaaggat cctccagaga agccagctct aaagcttttg 3360 caatcatctg gtgagagaac ccagcaagga tggacaggca gaatggaata gagatgagtt 3420 ggcagctgaa gtggacagga tttggtacta gcctggttgt ggggagcaag cagaggagaa 3480 tctgggactc tggtgtctgg cctggggcag acgggggtgt ctcaggggct gggagggatg 3540 agagtaggat gatacatggt ggtgtctggc aggaggcggg caaggatgac tatgtgaagg 3600 cactgcccgg gcaactgaag ccttttgaga ccctgctgtc ccagaaccag ggaggcaaga 3660 ccttcattgt gggagaccag gtgagcatct ggccccatgc tgttccttcc tcgccaccct 3720 ctgcttccag atggacacag gtgtgagcca tttgtttagc aaagcagagc agacctaggg gatgggctta ggccctctgc ccccaattcc tccagcctgc tcccgctggc tgagtcccta 3780

gcccccctgc	cctgcagatc	tccttcgctg	actacaacct	gctggacttg	ctgctgatcc	3840
atgaggtcct	agcccctggc	tgcctggatg	cgttccccct	gctctcagca	tatgtggggc	3900
gcctcagtgc	ccggcccaag	ctcaaggcct	tcctggcctc	ccctgagtac	gtgaacctcc	3960
ccatcaatgg	caacgggaaa	cagtgagggt	tggggggact	ctgagcggga	ggcagagttt	4020
gccttccttt	ctccaggacc	aataaaattt	ctaagagagc	tactatgagc	actgtgtttc	4080
ctgggacggg	gcttaggggt	tctcagcctc	gaggtcggtg	ggagggcaga	gcagaggact	4140
agaaaacagc	tcctccagca	cagtcagtgg	cttcctggag	ccctcagcct	ggctgtgttt	4200
actgaacctc	acaaactaga	agaggaagaa	aaaaaagag	agagagaaac	aaagagaaat	4260
a						4261